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IN A UNIVERSITY TEACHING HOSPITAL

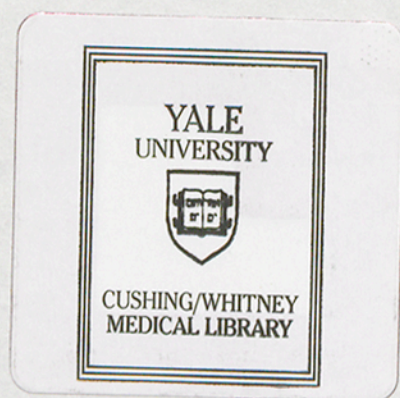
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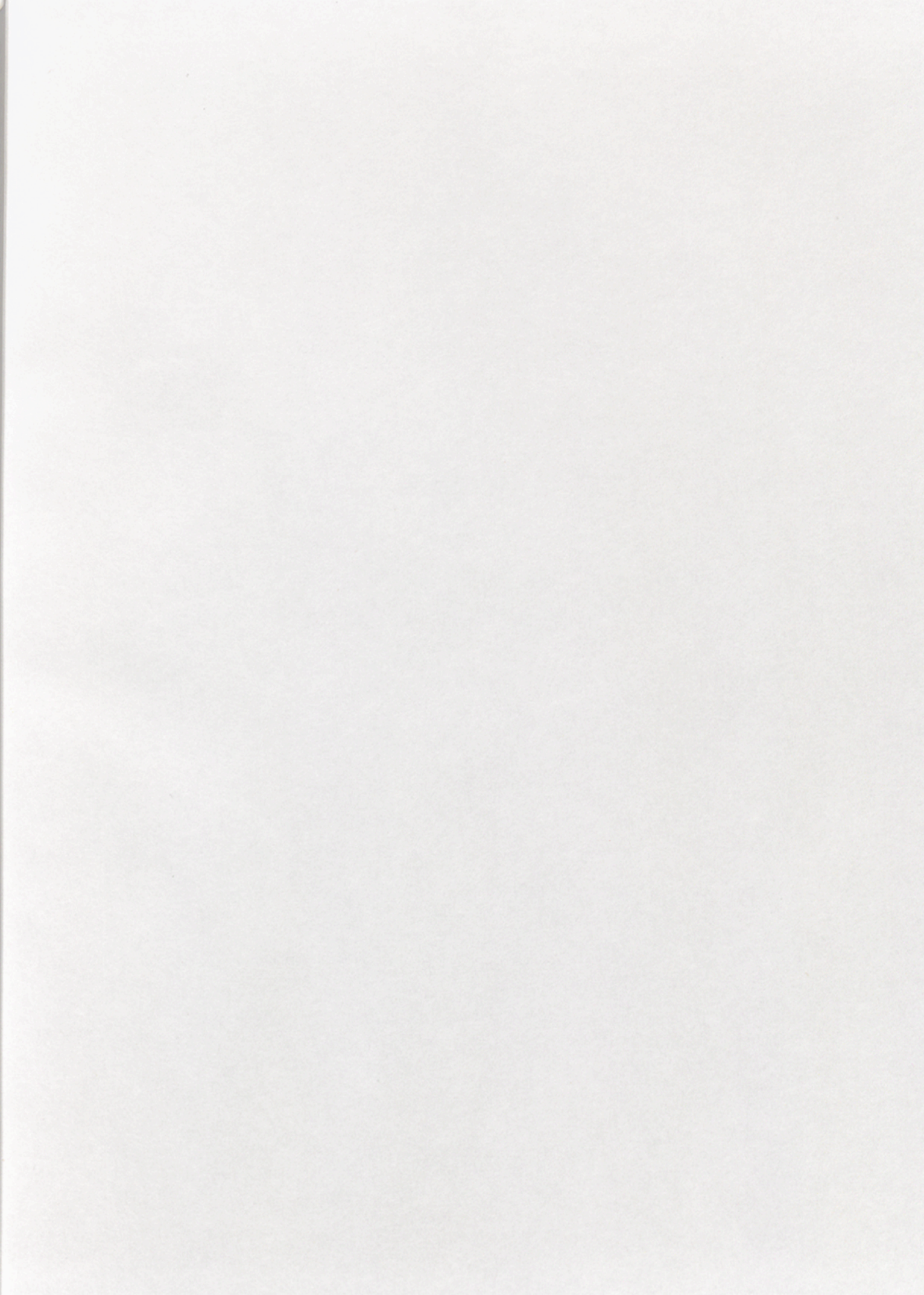
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**PATIENT KNOWLEDGE OF THEIR CARE PROVIDERS  
IN A UNIVERSITY TEACHING HOSPITAL**

**A Thesis Submitted to the  
Yale University School of Medicine  
In Partial Fulfillment of the Requirements for the  
Degree of Doctor of Medicine**

**by  
Ron E. Samet**

**2001**



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## Abstract

PATIENT KNOWLEDGE OF THEIR CARE PROVIDERS IN A UNIVERSITY TEACHING HOSPITAL. Ron E. Samet and Walter N. Kernan. Department of Internal Medicine, Yale University, School of Medicine, New Haven, CT.

**Purpose:** To examine patient ability to correctly identify and differentiate the capabilities of medical team members caring for them, and to determine patient demographic and experience factors associated with their level of awareness.

**Methods:** During a four-week period at Yale New Haven Hospital, 17 internal medicine inpatients were interviewed using a researcher-administered questionnaire to assess their knowledge of the identities and capabilities of the medical housestaff caring for them. Index cards with names and printed photographs of the housestaff were used to test patient knowledge of titles, responsibility hierarchy, level of education, and capabilities among medical students, interns, residents, and attending physicians. Responses were analyzed using descriptive statistics and chi-square tests for differences in patient knowledge. **Results:** Overall, patients demonstrated poor comprehension of their caretakers' identity and capabilities; in fact, 47.1% of patients were unable to correctly identify the title of any of their providers. Of all patients, 64.7% were unable to correctly order the basic medical team members by level of responsibility. Patients showed deficiencies at distinguishing the different educational level of housestaff (48% correct responses overall), yet patients showed slightly better knowledge of housestaff examination and treatment authority (76.5% and 53.0% correct responses, respectively). Professional identities and roles were



better understood for medical students and attendings than for interns and residents. Lower awareness was observed for patients without either a college degree ( $p<0.02$ ) or numerous previous hospitalizations ( $p<0.16$ ). **Conclusions:** Patient knowledge of their care providers in a teaching hospital is minimal with most patients unaware of the names, titles, and medical capabilities and responsibilities of their caretakers. To comply with the needs for proper informed consent from patients, several suggestions are offered for improving patient awareness and understanding of the respective roles of their medical providers, such as the creation of new unambiguous nomenclature for housestaff (e.g., "Doctor-in-Charge," "Senior Team Doctor," "Team Doctor," and "Team Medical Student").



## Acknowledgements

“May we give thanks to the Almighty, for He is good; His kindness endures forever” (Psalms 145). To praise Him with words would limit His blessings. Therefore, I revert to a prayer by Maimonides. “Support me, Almighty God, in these great labors that they may benefit mankind, for without Thy help not even the least thing will succeed.”

The culmination of this thesis and my medical school education has been made possible with the help of many individuals. I take this opportunity to express my extreme gratitude and appreciation to the following individuals:

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This thesis is dedicated to my living grandfather, Mr. Arthur Samet, he should live and be well, and in loving memory of my paternal grandmother, Mrs. Gertrude Samet, and



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Thank you all.

Ron E. Samet

April 12, 2001



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## Introduction

Patient autonomy, one of the cornerstones of medical ethics, has been increasingly emphasized in medical practice. Sparked by a court ruling in 1914 stating, “every human being of adult years and sound mind has a right to determine what shall be done with his own body,”<sup>1</sup> respect for patients and their autonomy has prompted the creation of formal provisions to heighten patient awareness, understanding, and consent within the medical setting.

In 1973, the American Hospital Association drafted “A Patient’s Bill of Rights,” and declared that: “the patient has the right to get enough information about any proposed treatment or procedure to make an “informed consent” -- that is, he should know enough about the expected benefits, possible hazards, and time needed for recovery... and has the right to know *who will be responsible* for the treatment and/or procedure.” Furthermore, the patient has “the right to know *the name and function* of any person providing health care services to them” and “to know when those involved are students, residents or other trainees.”<sup>2</sup>

Also in 1973, a United States government commission report encouraged teaching hospitals to respect these patient rights by suggesting, “upon admission (the patient) should be given a statement explaining the educational aims of the institution and told how students, interns, and residents will participate in their care.”<sup>3</sup> The Joint Committee of Accreditation of Hospitals (JCAH) echoed these concerns in 1984 by stating:



The patient has the right to know the *identity and professional status* of individuals providing service to him... this includes the patient's right to know of the existence of any professional relationship...involved in his care.<sup>4</sup>

Despite the clear delineation of these patient rights, physicians commonly argue that it is unnecessary to educate patients regarding trainee involvement and capabilities. Two primary concerns are cited: (1) social utility, i.e. given choices, patients may refuse care and thereby hinder the learning experience of trainees leading to a shortage of skilled physicians in the future, and (2) therapeutic privilege, i.e. providing information about trainee care may increase patient stress. However, studies cast doubt on these concerns. Patients, provided they are notified in advance, have been shown to willingly accept medical trainee involvement in their care and perhaps even experience less anxiety with trainee involvement.<sup>5,6,7,8,9,10</sup> Thus, full disclosure to patients about how medical trainees participate in their care remains warranted and expected by government and hospital mandate.

In practice, however, we posit that patients admitted to a teaching hospital are still largely uninformed as to the identity, professional status, and capabilities of individuals who have a role in their care. Patients are commonly inundated with medical personnel during their first 24 hours of admission and are left without appropriate explanation as to the trainee status and capabilities of each member of the housestaff. In particular, the patients seldom know who is ultimately responsible for their medical care. Logically however, different levels of patient awareness are likely to be associated with specific demographic and experience factors of patients as well. Patients with minimal prior



exposure to healthcare, and teaching hospitals in specific, as well as patients of low socioeconomic status, may be at greater risk for failing to understand the identity and responsibilities of healthcare providers.

In addition, patient lack of familiarity with healthcare providers may lead to poor patient-provider relationships. Especially in the complex and technically advanced medical setting of a teaching hospital, patients deserve to be properly oriented and sufficiently informed about the different providers involved in their care. Strong interpersonal relationships between patients and caregivers can be an important psychological factor in patient satisfaction and trust, and one that might have a significant effect on medical outcomes.

After thorough review of the literature, we were unable to identify any research that adequately examined the extent to which patients are aware of the title, educational level, and capabilities of the housestaff even after they are introduced. It is yet unclear whether patients can demonstrate sufficient understanding of the name and function of persons providing service to them, and whether patients can exhibit clear knowledge of who is responsible for their care. A proper study is therefore needed to assess patient knowledge of their providers' identities and roles with the goal of suggesting means to improve informed consent procedures, especially among an "uninformed" patient population.



To further research these important issues in informed consent and patient care, the following study to determine patient knowledge of their providers was proposed and implemented as the basis of this medical doctoral thesis.



## **Statement of Purpose**

In the context of modern hospital care, patient education strategies have been inadequate to inform the patients of the name and roles of the medical team members. To document the extent of this problem, we designed a study with the following specific aims:

### **Primary Aim**

To examine patient ability to correctly identify and differentiate the capabilities of medical team members caring for them, and to determine patient demographic and experience factors associated with their level of awareness.

We hypothesize that many patients are unable to identify the names and respective titles (i.e. attending, resident, intern, medical student) of their providers, and are ill informed of the different medical capabilities of the housestaff caring for them, such as, who is authorized to perform a physical exam, prescribe medications, to function without any supervision, etc. Decreased awareness is hypothesized to be greater among patients classified by the following demographic and experience factors: (1) low socioeconomic background, (2) few hospital admissions, and (3) minimal exposure to trainees.

### **Secondary Aims**

(1) To determine patient awareness of the varying levels of medical education and corresponding hierarchy of responsibility for patient care among the housestaff; and to study patient ability to correctly identify those levels of education and responsibility hierarchy among the individuals caring for them.



We hypothesize that a significant number of patients admitted to and managed by an internal medicine team are unaware of the various levels of medical training among the medical team. Furthermore, an even higher percentage of patients will be unable to correctly identify the hierarchal levels among the medical team caring for them.

(2) To determine patient satisfaction regarding their pretest knowledge of the roles and responsibilities of the medical team caring for them, and to determine the level of import they ascribe to being familiar with the name and capabilities of the housestaff.

We hypothesize that many patients are unsatisfied with their current knowledge of the housestaff and wish to be more familiar with the identities and capabilities of the housestaff.



## Methods

### Overview

During a four-week period at Yale New Haven Hospital, 17 internal medicine inpatients were interviewed using a researcher-administered questionnaire to assess their knowledge of the identities and capabilities of the medical housestaff caring for them. Index cards with names and printed photographs of the housestaff were used to test patient knowledge of titles, responsibility hierarchy, level of education, and capabilities among medical students, interns, residents, and attending physicians. Responses were analyzed using descriptive statistics and chi-square tests for differences in patient knowledge.

### Research Period and Location

The interview process was conducted during four weeks (February 26 – March 22, 2001) on the inpatient internal medicine wards at the Yale New Haven Hospital (YNHH), New Haven, Connecticut. The project was approved by the Human Investigation Committee (HIC # 12254), and by both the chairman and residency director of the Department of Internal Medicine.

### Team Selection

Yale New Haven Hospital, located in downtown New Haven, serves as a primary, secondary, and tertiary care center for a diverse patient population spanning the entire spectrum of socioeconomic status and clinical disease. While there are a number of internal medicine teams at YNHH that provide care for general internal medicine patients, there are only five “general internal medicine” teams. Four of these five teams



have an identical team structure comprised of the following six individuals: a university attending, a second or third year internal medicine resident, two interns, and two Yale medical students. To ensure a representative population of general internal medicine patients and a standardized team infrastructure, patients admitted to these four teams were selected for review as eligible study participants.

However, before patients were reviewed for eligibility as study participants, oral consent from the housestaff composing those teams during the four-week study period was needed, since their names and pictures would be used as modalities to test patient awareness of housestaff identities and roles. In the effort to blind the housestaff to the questions asked in the study, yet obtain oral consent for their pictures to be taken and their names printed on index cards, the author approached each member of the four medical teams for consent. Additionally, nine other interns and residents, who would replace their colleagues during the four-week period, were approached as well (33 individuals in all). Caretakers were told that the study would test patients' basic knowledge of the individuals caring for them by names and pictures; no personal information about the housestaff beyond their names and roles would be disclosed to the patients; their printed names and pictures would be destroyed at the conclusion of the study; and no identifying information of theirs would be used in any discussion or write-up of the study. Of 33 members of the housestaff approached, 31 (93.9%) chose to participate. Due to the nonparticipation of two members of the same team, all patients admitted to only three of the four teams were included as potential participants.



### Patient Eligibility

Beginning on February 26, 2001 and ending on March 22, 2001, a daily printout of “Team Lists” for each of the three consenting teams was obtained from the Clinical Care Support System, a computer system in YNHH that provides an active log of all inpatients. Each “Team List” included patient names, admission dates, and names of the attending physicians.

All consecutive patients, regardless of age, race, sex, admitted between February 26 and March 22, 2001 to any of the three consenting general internal medicine teams at YNHH were screened for participation. Patients were excluded if their attending was documented on the “Team List” to be someone other than the university attending physician, albeit occasionally this information is incorrect; such patients are referred to as “private” patients. Further exclusion criteria included: diagnosis of dementia, attended to by more than two consulting specialties, or physically unable to participate (e.g., poor vision, unable to verbalize answers, transferred from the intensive care unit). Patients were screened for these characteristics via the hospital chart.

Lastly, patients only became eligible as study participants once there was a documented note in their hospital chart provided by each team member directly caring for the patient. This strategy was used to ensure that patients had adequate interactions (evidenced by a detailed written note of the patient’s condition) with those individuals about whom they would be asked to identify and classify. It is important to note that while each team is comprised of six individuals, only three or four of the six (the attending, the resident, one



intern, and occasionally one medical student) are directly involved in the care of each individual patient. Furthermore, due to rotating on call schedules of the housestaff, some patients were admitted by a resident from another team, and may have had other interns and residents caring for them at night or on weekends. Thus, to qualify a patient for eligibility as a study participant, hospital charts were reviewed to make sure they included a different note from the team attending, the team resident, and the responsible team intern. Often, medical students had also been involved in the direct care of the patient and had written a note in the chart as well. However, when a medical student was not directly involved (no medical student admission or progress note in the chart), patients were asked to verify meeting the student by recognizing the student's picture, prior to being questioned about them.

#### Interview Instruments

To test patients for their ability to identify housestaff names, titles, and capabilities, newly designed research instruments were created prior to the onset of interviews. These instruments are explained in detail below.

*Name Cards* - The name of each housestaff was printed upon individual 3 x 5 inch index cards. Names included first and last name, and excluded "Dr." or "M.D." designation. Each name was printed using Times New Roman font and 72 point font size. Each card was laminated with 3.5 x 5.5 inch self-laminating pockets. These cards are referred to as "Name Cards."



*Title Cards* - The following titles were also printed individually in the same text font (Times New Roman, 72 point size): Attending, Resident, Intern, and Medical Student. These cards were also laminated with 3.5 x 5.5 inch self-laminating pockets. These cards are referred to as "Title Cards."

*Team List Cards* - Upon three different 3 x 5 inch index cards, a list of the six names of each of the three consenting teams was printed (Times New Roman font, 48 point font size) in alphabetical order and laminated with 3.5 x 5.5 index self laminating pockets. Each card was titled either Team A, Team B, or Team C. Thus, for each patient, one of these three cards contained the names of the individuals on the medical team taking care of them. The other two lists contained the names of the individuals on the two other consenting medical teams. These three cards are referred to as "Team List Cards."

*Picture Cards* - Color photographs of the housestaff were also captured and produced. Prior to beginning the study, each member of the consenting teams was approached by the author and digitally photographed using a Sony Digital Mavica Still Camera. Photographs, taken from within 5 feet of the caregiver, captured a head-to-knee still picture (controlling for length of white coat) of each individual wearing their normal working attire, exactly as they appear to the patient. Microsoft Word 2000 was used to assemble the individual pictures of housestaff into a 3 x 3.5 inch size, and then each individual picture was printed on paper using a high-resolution Adobe Tektronic Color Printer. Names, degrees, and titles on housestaff's identification badges were illegible in



the pictures. Each individual photograph was then laminated into a 3.5 x 5.5 inch picture card. These cards are referred to as “Picture Cards.”

*Team Pictures* - Lastly, composite pictures of the whole team were generated using the individual photographs taken of each individual. Using Microsoft Word 2000 and Adobe Photoshop, each individual picture was cropped to include the head and neck of the housestaff and then blown up to 3 x 2.5 inch size pictures. Six pictures, grouped by team, (one picture per each member of the medical team), were aligned on one 8.5 x 11 inch page with a team title on the top of the page (Team A, Team B, or Team C). The composite pictures were then printed on a glossy 8.5 x 11 inch paper using a high-resolution Adobe Tektronic Color Printer. These pages were also laminated using 8.75 x 11.25 inch self-laminating pouches. Thus, for each patient, one of these three pages contained the pictures of the individuals on the medical team taking care of them. The other two pages contained the pictures of the individuals on the two other consenting medical teams. These pages are referred as “Team Pictures.”

#### Invitation for Patient Participation

All eligible patients were approached by the author between two and four days since their day of admission and asked if they would like to hear about the research study before being asked to participate. A HIC-approved information sheet describing the study’s purpose, risks and inconveniences, benefits, economic considerations, confidentiality, and option of voluntary participation was provided to and discussed with the patient prior



to obtaining oral consent. All consenting patients were interviewed solely by the author in a structured, standardized format.

### Research Questionnaire

The interview questionnaire, designed and created by the author and approved by the HIC, was fixed-choice in format and code-ready (see appendix). Patients responded to questions in nine major topic areas: 1) assessment of mental status; 2) patient satisfaction with initial knowledge of team members and level of importance attributed to knowing the name and capabilities of team members; 3) identification by patient of the team by name and picture; 4) identification by patient of individuals on team and understanding of hierarchy; 5) awareness of housestaff educational level; 6) awareness of housestaff capabilities; 7) patient desire for more information regarding housestaff; 8) patient demographic and experience factors; and 9) education and discussion. Each section is discussed below in greater detail.

Section 1 – Assessment of mental status - Patient mental status and comprehension were assessed upon attainment of oral consent and with select questions from Folstein's mini-mental status exam at the onset of the interview. The questions included: three-question orientation, three-item registration, two-item language naming, and three-item recall. These four categories of queries were chosen as they test the same mental skills needed to recall and identify information about the housestaff. Patients were required to score 8 of 8 on orientation, registration, and language naming, and at least 1 of 3 on short-term recall to continue being interviewed and be included as eligible participants.



Before proceeding with Section 2, patients were provided with a definition of the term “medical team” to ensure a standardized understanding of the individuals whom the questions would address. The explanation was as follows:

Before I start, I want to make sure you understand what I mean when I say “the medical team.” The medical team is the group of individuals that are making medical decisions for you and that manage your medical care while you are in the hospital on this floor. The “medical team” does NOT include individuals such as nurses, physical therapists, social workers, dieticians, or even the individuals that may have taken care of you in the Emergency Room. The medical team is the group that comes to visit you in the morning, talk to you, and then discuss how to medically take care of you. OK?

It is important to note that identification badges worn by the housestaff at all times bear the name, degree (i.e. M.D. or Yale Medical Student) and title of each individual. While the resident and medical student have titles identifying them precisely as “RESIDENT” and “MEDICAL STUDENT,” respectively, the intern and attending have titles stating, “RESIDENT” and “STAFF,” respectively.

#### Section 2 – Satisfaction with Knowledge and Importance of Name and Capabilities -

Patients were asked about their overall satisfaction with the care provided by YNHH and their satisfaction with their current knowledge of the medical team caring for them. They were then probed for the level of import they ascribed to being familiar with the name and capabilities of the housestaff caring for them.



Section 3 – Team Identification - To test for team identification, the “Team List Cards” were placed in front of the patient, and the patient was asked to identify the card that displayed the names of the individuals caring for them. The patient was then presented with the “Team Pictures” and asked to identify the page that displayed the photographs of the team caring for them.

Section 4 – Housestaff Identification and Hierarchy - Patients were provided with four name cards bearing the names of: (1) their attending, (2) their resident, (3) their intern, and (4) their medical student. These “Name Cards” were presented in alphabetical order. They were then provided with the “Title Cards”: (1) Attending, (2) Resident, (3) Intern, and (4) Medical Student. These cards were also presented in alphabetical order. Patients were asked to match each “Name Card” with a “Title Card.” The “Name Cards” were then replaced with “Picture Cards” and the patient was asked to repeat the task by matching each “Picture card” with a “Title Card.”

To test for hierarchy awareness and knowledge, the patients were asked to place the “Title Cards,” then the “Name Cards,” and then the “Picture Cards,” respectively, in order of responsibility for their medical care from lowest to highest.

Section 5 – Awareness of Housestaff Educational Level - The “Picture Cards” were then repositioned in front of the patient, in a different random order for each patient. The patient was asked three questions regarding the education level of the housestaff. Patients were instructed to point to the picture or pictures of individuals they believed



were the correct response, or to say "I Don't Know" about whom they were unsure. The three questions asked the patient whom they believed (1) was still in medical training; (2) has finished all of their medical training; and (3) has a Medical Doctor (M.D.) degree already.

Section 6 – *Understanding of Housestaff Capabilities* - With the "Picture Cards" still in front of the patient, the questions were continued one by one in the same format with the patients pointing to the picture or pictures they believed represented the correct response, or by responding, "I Don't Know." The questions asked in this section addressed patient understanding of housestaff capabilities in their care. These questions included whom the patient believed was authorized to: (1) question them about their medical condition; (2) perform a physical examination of them; (3) order diagnostic tests; (4) prescribe medications; and whom patients believed (5) needed no supervision at all at any time from any other person; and (6) had ultimate responsibility for their medical care.

Section 7 – *Patient Desire for More Information* - Patients were then asked if they would like to be more aware of their caretakers' names, capabilities, responsibilities, and level of training.

Section 8 – *Patient Demographics and Experience Factors* - Patient demographic and experience factors were collected at the end of the interview due to the personal nature of the questions. Included questions were: age, gender, race, level of schooling, subjective



condition of overall health, prior hospitalizations in the last ten years, the presence of a doctor in the family, and past work experience in health care.

Section 9 – Educating the Patient - The interview closed with the interviewer offering to educate the patient about the housestaff. If patients were “educated,” they were asked if they thought the education was helpful and whether they were glad to have received some orientation about their caretakers. Patients were then asked if they had any thoughts about the research, and any such thoughts were recorded.

#### Data Collection, Management, Checking, and Analysis

Data collection and management were also performed by the author. Patient responses were coded either during the interview or immediately following the interview, to ensure the integrity of the coded data vis a vis the answers given by the patient. Coded data were then entered into a Microsoft Excel 2000 worksheet for storage and analysis. In addition, a running log of all patients, and their exclusion criteria if applicable, was entered into a Microsoft Excel 2000 worksheet. Both sets of data were updated daily by the author. Data checking was done by entering the data twice independently, and then data entries were compared with each other. Manual visual inspection and internal checks for any outlying or missing data were also done to ensure accuracy. Data analysis and creation of data tables were accomplished using the statistical functions provided by Microsoft Excel 2000. StatPac, Inc.’s Statistical Calculator was used to perform chi-square tests with Yates correction.



## Results

During the four-week research period, 137 patients were admitted to the three consenting internal medicine teams used in this study. Of these patients, 61 of 137 (44.5%) were assigned to university attendings. Of the 61 university patients, 39 were excluded by reasons of diagnosis of dementia ( $n=19$ , 31.1%); physically unable to participate ( $n=12$ , 19.7%); attended to by more than two consulting specialties ( $n=2$ , 3.3%); admitted when housestaff was changing ( $n=3$ , 4.9%); and discharged prior to being invited to participate ( $n=3$ , 4.9%). Of the remaining 22, an additional 2 (3.3%) denied participation, and another 3 (4.9%) performed poorly on the introductory mental status assessment, leaving a total of 17 patients who agreed to participate and composed the sample population for this study.

### Patient Demographics and Experience Factors

The demographic profile of participating patients is summarized in Table 1. Patient ages ranged from 26–78 years with a mean of 45.24, a median of 45, and a standard deviation of 15.98; 11 (64.7%) were female, and 6 (35.3%) were male; 7 of the 17 (41.2%) identified themselves as Caucasian, 5 (29.4%) as African American, and 5 (29.4%) as Hispanic. The level of schooling was diverse: 3 (17.6%) had not completed elementary school; 8 (47.1%) completed one to four years of high school; 1 (5.9%) completed at least one year of college, while 5 (29.4%) achieved a college degree. Health status was self-reported as: healthy ( $n=6$ , 35.3%); has simple medical problems ( $n=2$ , 11.8%); and has complex medical issues ( $n=9$ , 53.0%). Patients with less than two previous hospitalizations in the last ten years by self-report totaled 4 (23.5%), while the remaining



13 (76.5%) had been hospitalized two or more times in the past ten years. No one reported having a doctor in the family, yet 3 of the 17 (17.6%) claimed to have worked in the healthcare industry.

Table 1. **Patient Demographics and Experience Factors**

		<i>n</i>	(%)
<u>Age</u>	25-39	6	35.3
	40-59	7	41.2
	60-80	4	23.5
Mean = 45.24, Median = 45, SD = 15.98			
<u>Gender</u>	Male	6	35.3
	Female	11	64.7
<u>Race</u>	Caucasian	7	41.2
	African American	5	29.4
	Hispanic	5	29.4
<u>Highest Schooling</u>	2nd-8th grade	3	17.6
	9th-13th grade	9	53.0
	College Degree	5	29.4
<u>Subjective Health</u>	Healthy	6	35.3
	Simple Problem	2	11.8
	Complex Problem	9	52.9
<u># of Previous Hospitalizations</u>	0-1	4	23.5
	2 or more	13	76.5
<u>Doctor in Family</u>	Yes	0	0.0
	No	17	100.0
<u>Worked in Healthcare</u>	Yes	3	17.6
	No	14	82.4
<u>Team of Patient</u>	Team A	4	23.5
	Team B	5	29.4
	Team C	8	47.1



*Satisfaction with Knowledge and Importance of Name and Capabilities* - Before patients were asked specific questions about their medical team, 82.4% expressed overall satisfaction with the care they had been receiving at YNHH and 53.0% claimed contentment with their pretest knowledge of their providers. Out of the 15 patients who expressed satisfaction with their care, 40% of them said they were unsatisfied with their knowledge of the medical team. In fact, a large majority of patients (82.4%) believed it is important for them to know their providers' names, and even more (88.2%) felt it essential to know the different medical capabilities of the housestaff.

*Team Identification* - Patient ability to identify the team caring for them was then tested. Only 53.0% of patients were able to correctly identify members of their team using housestaff names ("Team List Cards"). Seven among eight of the patients who were unable to recognize even one name among their actual providers on the "Team List Cards" said that they, nevertheless, felt it was important for them to know the names of their providers. On the other hand, 88.2% were able to recognize their team members by pictures ("Team Pictures"). Thus, patients were significantly better at identifying their providers through their pictures rather than by their names ( $\chi^2$  with Yates correction = 5.10,  $p = .0239$ ).

*Housestaff Identification* - The results for housestaff recognition using "Title Cards" and individual pictures of housestaff ("Picture Cards") are shown below in Table 2. The medical student was either identified correctly (53.0%), or was placed in the "don't know" category (47.1%); thus, all nine patients who "did know," identified the medical



student correctly. In contrast, the intern's picture was identified correctly only 17.6% of the time with almost a fifth of patients (17.6%) labeling the intern incorrectly as the attending. When asked to identify the residents by title, more than half the patients said that they did not know whom they were. Lastly, with regard to identification of attending physicians, approximately half of the patients (47.1%) said they did not know the correct title, and the remainder was roughly split between the "resident" title (23.5%) and the "attending" title (29.4%).

In summary, only 3 of 17 patients (17.6%) were able to identify all their caretakers correctly, and 8 of 17 (47.1%), or about half were either incorrect or did not know the titles of each caretaker. Furthermore, patients were more familiar with the medical student and attending (14 correct identifications overall) compared to the intern and resident (7 correct identifications overall). Patients did considerably better when housestaff pictures ("Picture Cards") were used instead of names ("Name Cards").



Table 2.

**Percent Correct Responses for  
Picture Identification by Housestaff Title**

<u>Correct Title</u>	<u>Patient Response</u>	<u>Number of Responses</u>	<u>Percent Responses</u>	<u>Correct Response</u>
Medical Student	<b>Medical Student</b>	<b>9</b>	<b>52.9</b>	Medical Student
	Intern	0	0.0	
	Resident	0	0.0	
	Attending	0	0.0	
	Don't Know	8	47.1	
Intern	Medical Student	1	5.9	Intern
	<b>Intern</b>	<b>3</b>	<b>17.6</b>	
	Resident	4	23.5	
	Attending	3	17.6	
	Don't Know	6	35.3	
Resident	Medical Student	1	5.9	Resident
	Intern	4	23.5	
	<b>Resident</b>	<b>3</b>	<b>17.6</b>	
	Attending	0	0.0	
	Don't Know	9	52.9	
Attending	Medical Student	0	0.0	Attending
	Intern	0	0.0	
	Resident	4	23.5	
	<b>Attending</b>	<b>5</b>	<b>29.4</b>	
	Don't Know	8	47.1	

**Summary Table**

<b>All Correct</b>	<b>3</b>	<b>17.6</b>
3 Correct	0	0.0
2 Correct	2	11.8
1 Correct	4	23.5
0 Correct (inc. DK)	8	47.1
 All Don't Know	 5	 29.4



*Housestaff Hierarchy* – Patients also did poorly in identifying the correct hierarchy among the housestaff. Using “Title Cards,” “Name Cards,” and “Picture Cards,” patients were asked to place the cards in order of responsibility from lowest to highest. To scale patient results for the “put-in-order” task and taking into account conceptual similarities between interns and residents, four categories of answer were created: “exactly correct” (medical student, intern, resident, attending); “nearly correct” (medical student, resident, intern, attending); “incorrect;” and “don’t know.”

Furthermore, responses that were either “exactly correct” or “nearly correct” were combined into a new category termed, “essentially correct,” to provide the total number of patients who understood the basic hierarchy of a medical team (student, resident, attending). Likewise, an “essentially incorrect” category was made by summing up the “incorrect” and “don’t know” responses to show the number of patients who were unable to perform this exercise correctly.

The percentages of responses for each type of stimulus card used per category, as well as for each category regardless of stimulus card presented, have been tabulated in Table 3 below. Patients were most familiar with the hierarchy by pictures (35.3% correct), less familiar with the hierarchy by titles (23.5% correct), and least familiar with the hierarchy by names (17.6% correct). Overall, patients experienced difficulty regardless of the stimulus cards used. Roughly 65 to 82 percent of patients were unable to place even the basic order of the team infrastructure into the proper sequence.



Table 3. Hierarchal Ordering of Housestaff Members By Type of Card Presented\*

	Response % for <u>Title Cards</u>	Response % for <u>Name Cards</u>	Response % for <u>Picture Cards</u>	Response % <u>Overall</u>
Exactly Correct	17.6	11.8	23.5	17.6
Nearly Correct	5.9	5.9	11.8	7.8
<b>Essentially Correct</b>	<b>23.5</b>	<b>17.6</b>	<b>35.3</b>	
Incorrect	35.3	23.5	23.5	27.5
Don't Know	41.2	58.8	41.2	47.1
<b>Essentially Incorrect</b>	<b>76.5</b>	<b>82.4</b>	<b>64.7</b>	

\*Overall percentages for each category are shown at right.

*Understanding of Housestaff Education Level and Capabilities* - Patients showed various levels of knowledge regarding the education level and capabilities of housestaff. Among the four main topics: (1) housestaff educational level, (2) examination authority, (3) treatment authority, and (4) ultimate responsibility, the overall correct responses for each topic were 48.0%, 76.5%, 53.0%, and 61.8%, respectively. These percentages were calculated by collating the responses to individual questions by topic, as can be seen in Table 4 below. Figure 1 highlights differences in patient knowledge of examination authority versus treatment authority for the four care providers, showing that the intern is perceived as having more authority than the resident.



As shown in Table 4, total correct responses for each question, displaying the percentages of correct responses irrespective of caretaker, and overall correct responses per each caretaker irrespective of individual question, were calculated as well. Results show that patients had more understanding of the medical student and attending roles (64.0% and 67.6%, respectively) compared to their knowledge of the intern and resident roles (55.1% and 45.6%, respectively).

Specific results of interest include: (1) 41.2% and 58.8% of patients were uncertain as to the trainee status of the intern and resident, respectively; (2) over 65% of patients were either incorrect or said they did not know about the resident's role in treatment; and (3) less than 50% of patients were able to correctly identify the attending as the individual who maintains ultimate responsibility for their medical care. For patient knowledge of housestaff roles, see Table 4 below.

Figure 1. **Correct Responses for Examination and Treatment Authority**

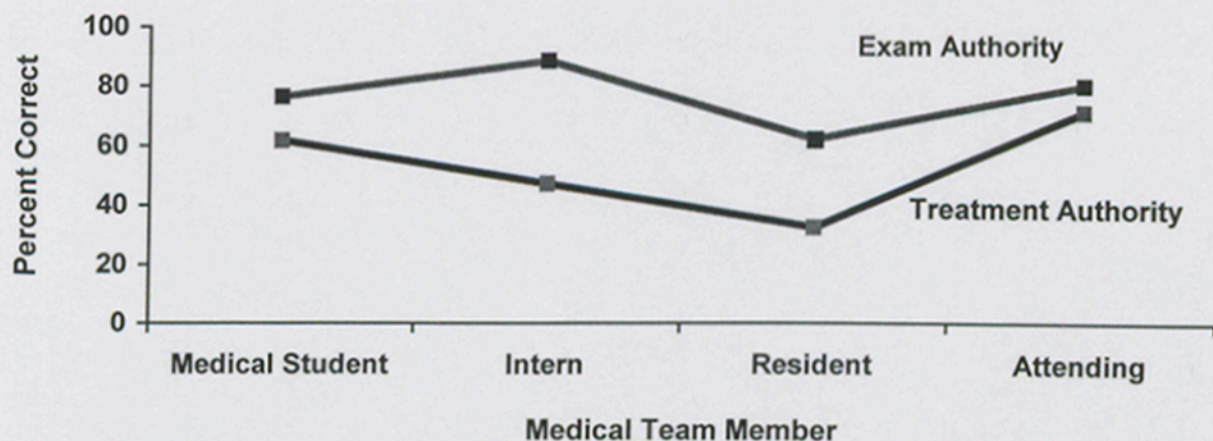




Table 4. Patient Knowledge of Housestaff Educational Level and Capabilities (in percentages)\*

	<u>Medical Student</u>	<u>Intern</u>	<u>Resident</u>	<u>Attending</u>	<u>Total Correct</u>	<u>Overall Correct 48.0</u>
<b>Educational Level</b>						
Still in Training					52.9	
Yes	64.7	41.2	41.2	0.0		
No	0.0	17.6	0.0	64.7		
Don't Know	35.3	41.2	58.8	35.3		
Has MD Degree					48.5	
Yes	17.6	23.5	35.3	82.4		
No	52.9	47.1	41.2	0.0		
Don't Know	29.4	29.4	23.5	17.6		
Needs no supervision					42.6	
Yes	23.5	23.5	29.4	47.1		
No	47.1	41.2	35.3	23.5		
Don't Know	29.4	35.3	35.3	29.4		
<b>Examination Authority</b>						76.5
Authorized to do HPI					83.8	
Yes	82.4	94.1	70.6	88.2		
No	5.9	0.0	11.8	5.9		
Don't Know	11.8	5.9	17.6	5.9		
Authorized to do PE					69.1	
Yes	70.6	82.4	52.9	70.6		
No	5.9	0.0	11.8	5.9		
Don't Know	23.5	17.6	35.3	23.5		
<b>Treatment Authority</b>						53.0
Authorized to order tests					55.9	
Yes	11.8	52.9	35.3	70.6		
No	64.7	23.5	35.3	11.8		
Don't Know	23.5	23.5	29.4	17.6		
Authorized to order medications					50.0	
Yes	11.8	41.2	29.4	70.6		
No	58.8	29.4	41.2	5.9		
Don't Know	29.4	29.4	29.4	23.5		
<b>Ultimate Responsibility</b>						61.8
Has ultimate responsibility					61.8	
Yes	5.9	11.8	11.8	47.1		
No	70.6	64.7	64.7	29.4		
Don't Know	23.5	23.5	23.5	23.5		
<b>Total Correct Responses</b>	64.0	55.1	45.6	67.6		

\* Correct responses are bolded. Total correct per question and overall correct per topic are shown at right.



*Patient Interest for More Information* – When patients were asked if they desired more information about their caretakers, 76.5% requested to be more aware of the housestaff's names, responsibilities, and level of education, and 82.4% desired more knowledge of the capabilities of trainees involved in their care.

*Demographic and Experience Factors Associated with Decreased Awareness* - To determine any demographic or experience factor that differentiated patients, patients were categorized into three tiers: "poorly informed," "moderately informed," and "better informed." Categorization was performed in two different ways. In the first method, patients were divided up based on the total number of correct responses they achieved in all of the following sections: team identification, housestaff identification, hierarchy ordering, level of education and capabilities (47 responses in total). Patients scoring less than 35% total correct were classified as "poorly informed;" patients scoring between 35% and 60% total correct were classified as "moderately informed," and patients scoring greater than 60% total correct were classified as "better informed."

The second method involved creating clinically cogent subjective criteria that the author considered to be the most important or critical information a patient should know. These criteria examined the responses to the following topics: (1) medical team identification; (2) essentially correct order of housestaff hierarchy (medical student, intern, resident, attending or medical student, resident, intern, attending), (3) which housestaff required supervision, (4) and who was ultimately responsible for their care. Out of a possible total of 7 correct responses to the "critical" questions, patients with 2 or less correct were



classified as “poorly informed,” 3 or 4 correct classified the patient as “moderately informed,” and 5 or more correct classified the patient as “better informed.” Not surprisingly, both methods yielded roughly the same group of patients in each category. Analysis of differentiating demographic and experience factors was then followed-up using the two extreme groups: the “poorly informed” ( $n=9$ ) and the “better informed” ( $n=7$ ). A summary of the resulting data has been provided in Table 5 below.

The small patient population hindered the ability to test for statistically significant differences between the “poorly informed” and “better informed” groups for most dependent variables, however certain patterns are suggested. While variations in gender, subjective health, and occupation in healthcare were evenly distributed between both groups, increased age (over 60 years) and patients of Hispanic origin tended to be part of the “poorly informed” group. Similarly, patients with few previous hospitalizations (less than 2) usually demonstrated poor knowledge of their provider identities and capabilities. Among all the demographic and experience factors, patient level of schooling yielded a statistically significant difference ( $\chi^2$  with Yates correction = 6.322,  $p = 0.0119$ ) with college graduates exclusively in the “better informed” cohort.



Table 5. Demographic and Experience Factors for Poorly and Better Informed Patients

Demographics		“Poorly Informed” Patients (Less than 35% correct responses)		“Better Informed” Patients (More than 60% correct responses)		
		Patients	Percentage	Patients	Percentage	
Age	25-39	4	44.4	2	28.6	
	40-59	2	22.2	5	71.4	
	60-80	3	33.3	0	0.0	
	Mean = 47.1, SD = 19.6		Mean = 40.7, SD = 10.1			
Gender	Male	3	33.3	3	42.9	
	Female	6	66.7	4	57.1	
Race	Caucasian	3	33.3	4	57.1	
	African American	2	22.2	2	28.6	
	Hispanic	4	44.4	1	14.3	
Formal Schooling						
College Degree	Yes	0	0.0	5	71.4	$\chi^2 = 6.32$ $p = 0.01$
	No	9	100.0	2	28.6	
Experience with Doctors						
Number of Previous Hospitalizations	0-1	4	44.4	0	0.0	$\chi^2 = 2.12$ $p = 0.15$
	> 1	5	55.6	7	100.0	
Self-reported Health Status	Healthy	4	44.4	2	28.6	
	Simple Problems	1	11.1	1	14.3	
	Complex Problems	4	44.4	4	57.1	
Worked in Healthcare	Yes	1	11.1	2	28.6	
	No	8	88.9	5	71.4	



*Educating the Patient* - After the interview, all 17 patients (100%) requested to be educated as to the identities and capabilities of the housestaff. All patients felt that the learning exercise provided was helpful, and said that they were glad to have become more knowledgeable about their caretakers. Five patients (29.4%) chose to write down the names and titles of the caretakers at the conclusion of the learning exercise, and more than half of the patients believed that every admitted patient should be offered this information about the staff shortly after admission.

*Free Form Responses* – When asked for their thoughts, several patients expressed dissatisfaction with the conventional titles, “medical student,” “intern,” “resident,” and “attending” for distinguishing the differing roles of the medical team. Specific comments from patients included different reasons for knowing more about the housestaff. One patient said that she wanted to know her providers’ names so that she could develop better communication with them. Another patient said that provider names and functions were extremely important information because it allowed him to understand who was responsible for certain tasks and with whom to speak about specific issues. Yet another patient argued, “as long as they take good care of me, it is not important to know their names.” One patient attributed his correct answers to a physician friend who visited him the day of admission, and explained to him the hierarchy and roles of each of his providers. Two other patients said they responded correctly to most questions because they had worked in healthcare in the past.



## Discussion

In general, the results of this study indicated that most patients demonstrate poor knowledge of the names and capabilities of their care providers in nearly all areas. For example, only 53.0% of patients were able to correctly recognize at least one of the names of their providers, and a mere 17.6% were able to correctly match each provider with their respective medical role. Furthermore, the "I Don't Know" answer category was used by patients in response to exactly 50.0% of all identification questions. With respect to housestaff capabilities as related to their care, most patients demonstrated good understanding of which team members have examination authority (76.5% correct), yet showed poorer knowledge of who was authorized to treat them (53.0% correct) and of the trainee status among caregivers (48% correct).

Despite the fact that most patients (88.2%) were able to identify their caretakers by sight, 82.4% of all patients still felt it important for them to also know the names of their providers. Reasons for the importance of knowing caregivers' names were not directly solicited, however some patients remarked that this information would help them develop a better relationship with their providers, especially in the distressing environment of a hospital experience. Yet, only 53.0% of patients demonstrated an ability to recognize the names of their caretakers. These findings confirm results of previous studies that show a wide disparity between patient motivation to know their providers' names and the extent to which patients are actually aware of this information.<sup>11</sup>



Perhaps the greatest difficulty that patients had in this study was the ability to correctly match provider names and pictures with conventional titles. Since no simple self-apparent convention exists for housestaff titles, patients are left to learn these terms on their own either by inquiring or by learned experience in order to differentiate medical providers from one another. While the term “medical student” seems obvious and logical to many patients enabling them to identify the medical student 53.0% of the time, the professional nomenclature of other housestaff, such as “intern,” “resident,” and “attending” remains difficult and cryptic to patients resulting in only 17.6%, 17.6%, and 29.4% correct matching responses for each title, respectively. These findings are not surprising given that the concept of a “medical student” is ubiquitous in our society, whereas the roles of interns, residents, and attending physicians are known primarily only by people with experience in teaching hospital settings.

More specifically, results of data trends reveal that patients have a very hard time distinguishing between the names and roles of the intern and resident. A likely explanation for this finding might be the conflicting messages patients receive about these individuals. As graduates of medical school, interns and residents are introduced as doctors. Furthermore, in the presence of medical students, interns and residents often take teaching roles and display superiority and authority. Thus, patients get to know interns and residents as professionals who likely have finished their medical education. On the other hand, interns and residents often defer decisions to the attending physician when situations become complex, demonstrating their prematurity to function on their own.



In addition, the ample amount of time and strong interaction a patient has with an intern might likely account for why 17.6% of patients mistakenly identify the intern as the attending. Interns are viewed by some patients as their “main doctor.” While educators may consider this perception a success, it is concerning that nearly one quarter (23.5%) of patients believe that the intern can function without supervision and is truly responsible for their care.

Moreover, from a medical education perspective, interns are technically considered first-year residents, and thereby, their colleagues often refer them to as “residents.” In fact, the identification badge of an intern at YHH displays the title “RESIDENT” on it. Clearly, these factors confuse patients and blur their perception of the differential positions of these individuals. These same role-blurring factors are likely to have contributed to the poor performance of patients on the “put-in-order” tasks, with at least 64.7% of patients unable to put even the pictures of the housestaff in an essentially correct hierarchical order (student, resident, attending). Our results therefore, strongly suggest the need for improving and standardizing the meaning and understanding of medical staff titles used in academic hospitals.

Another issue that patients evaluated as important for them to understand is the different medical capabilities of housestaff. Similar to a finding by a previous study,<sup>12</sup> the present research showed that almost 90% of patients felt they should know about the professional participation and specific roles of residents and students. This percentage of motivated patients is extremely high, considering that only about 45% to 65% of patients were able



to correctly respond to basic questions about medical student, resident, and attending authorities and responsibilities. Similar findings of better patient familiarity with the medical student and attending were documented in this area as well. Interestingly, one patient remarked that actions performed by an individual on the medical team demonstrated to her that this team member was officially authorized to perform these actions. She stated her assumption, "If he wasn't allowed to do that, he obviously wouldn't have done it." This passive approach to learning about housestaff capabilities is an unfortunate one adopted by patients, and can easily lead to patient abuse and privacy invasion. With the marked disparity between what patients desire to know and what they actually do know, it appears clear that patients' wishes are not satisfied and that an educational medium needs to be provided to meet these wishes.

Although most patients demonstrate far from optimal knowledge about their providers, our research indicates that some demographic and experience factors influence levels of awareness among patients about their caretakers. For example, patient factors such as lower levels of education (not attaining a college degree) and minimal experience as patients in teaching hospitals were accompanied by statistically reliable lower levels of awareness ( $p = 0.01$  and  $p = 0.15$ , respectively). Other factors, including age and ethnicity may have also demonstrated associations, but the sample population studied here was too small to derive reliable differences. Nevertheless, these findings suggest that educational programs for improving patient awareness and informed consent procedures may need to be tailored to specific groups of patients, such as determined by age, intelligence, cultural differences, and patient experience.



In light of the aforementioned data, we can strongly conclude that patient knowledge of their care providers in a teaching hospital is minimal with most patients unaware of the names, titles, and medical capabilities and responsibilities of their caretakers.

*Study Limitations* – There are several limitations to the present study. Perhaps, the greatest limitation was the small sample size of 17 patients, which occurred for several reasons. Firstly, the experimental design required the experimenter to locate, approach, attain oral consent, and photograph each housestaff member before patients under their care could become eligible for this research. Moreover, as the housestaff turned over several times within the one-month research period, each new housestaff needed to be approached, advised of the study, consented, and photographed as well. Each time a personnel switch occurred, new cards would have to be made to include the new housestaff. These compliance tasks were exceedingly difficult and hard to accomplish. Secondly, only patients being cared for by a university attending were eligible due to the technical difficulties of attaining oral consent and pictures from private attendings, as required to interview their patients. It can be speculated that private patients might be better oriented to the tested information, since they have a preexisting relationship with their primary provider. Thirdly, given the mental and physical capacity needed to answer the interview questions, many patients were excluded for reasons of dementia and physical constraints. These practicalities severely limited the size of the available patient population for study here.



In this study, several important variables were technically impossible to control for and they may have influenced the results of this study. These variables include the amount of time each caretaker spent with the patient, the nature of those interactions, the pre-interview educational information provided to the patient, and the severity of the patient's condition. Obviously, the more time and personal attention each provider gives to a patient, the more familiar the patient is likely to become with that provider. Moreover, it was not feasible to dictate and monitor the personal nature of the patient-provider interaction and the extent to which patients were educated prior to interviews. In addition, patients' mental status during the initial and subsequent interactions with the housestaff was not assessed. Some patients may have been put on sedating or mind-altering medications, while others may have been too ill or in too much pain to absorb any information about the housestaff provided. Also of note, is the fact that some patients were admitted by other individuals (cross cover or night float interns and residents), and therefore may have been further confused by additional personnel.

Future studies should attempt to overcome some of these limitations, and test possible interventions designed to improve informed consent. However, despite the technical design limitations mentioned here, the results of this study strongly point to current problems in informed consent practices and the need to correct them. To comply with the needs for proper informed consent from patients, several suggestions are offered for improving patient awareness and understanding of the respective roles of their medical providers.



*Guidelines for Improving Patient Awareness* - Based on our findings, several prescriptive suggestions are in order to enhance patient awareness and understanding of their caretaker roles. In fact, the current results suggest that simple interventions could go a long way to improve patient orientation with respect to members of the medical team caring for them. Special attention can be given to patients who might be considered at risk for being “uninformed” due to demographic or experience factors, such as being first-time hospital patients. Standardized guidelines for introducing housestaff to patients with appropriate explanation of their respective titles and roles can be advocated and encouraged by existing staff. For example, providers could wear color-coded team tags or pins that identify themselves as members of the patients’ medical team. Such behavioral mechanisms would help “uninformed” patients immediately distinguish between their medical housestaff and other hospital personnel. Furthermore, using the marker boards in patient rooms, the name and title of each member of the medical team could be written in appropriate hierarchical order for patients to refer to when in need of medical support. Lastly, better descriptions and more information could be given in orientation material provided to the patient by hospital admissions and floor nurses. Currently, a pamphlet titled “Patient Rights, Responsibilities and Ethics,” provided by YNHH nurses to patients upon admission, suggests that patients “should know the names and duties of everyone who treats (them).” Patients are instructed to “Always ask who they (the housestaff) are.” Yet, descriptions of team members provided in the pamphlet are quite cursory and terse, and patients often shy away from actively questioning the identity and roles of their care providers.



Eventually, however, all of the desired information, including annotated housestaff pictures, could be available to the patient at any time of day at their bedside. As digital technology becomes cheaper and more available, digital photographs of medical personnel can be taken periodically with copies reproduced for patient rooms. Pictures can be accompanied with short descriptions of personnel rank and duties. Another possibility is to provide educational information programs about basic infrastructure of medical teams on close circuit television channels to patients, as done already in some American hospitals to inform patients of medical procedures, hospital events, meal menus, etc.

Most importantly, a new self-evident nomenclature should be developed and tested for representing the hierarchal positions of the medical housestaff, leaving no ambiguity for patients as to caretaker rank and level of responsibility. Titles similar to those found in other professions where rank and responsibility is evident, such as professor, associate professor, and assistant professor in academia, or general, colonel, major, lieutenant, etc. in the army, could be adopted in the university hospital environment to classify medical personnel into easy to understand and ordered titles. For example, titles such as Doctor-in-Charge, Senior Team Doctor, Team Doctor, and Team Medical Student, might replace Attending, Resident, Intern, and Medical Student, respectively, and would allow patients to distinguish rank, level of education, and level of responsibility of their caretakers within a few short seconds of meeting them. Of course, the development, implementation and acceptance of an improved system for housestaff titles requires further research.



In an era when patients are seeking and attaining more information about their medical conditions, treatments, and care providers via various information resources, knowledge of their providers in a university teaching hospital remains inadequate. Based on the results of this thesis, several suggestions have been offered with the hope of improving patient awareness and informed consent in this area.



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## Appendix

QUESTIONNAIRE

Date: \_\_\_\_\_

Team: \_\_\_\_\_

INTRODUCTION AND ORAL CONSENT

HELLO. MY NAME IS \_\_\_\_\_ AND I AM A RESEARCHER. WE ARE DOING A STUDY TO DETERMINE WHAT HOSPITALIZED PATIENTS KNOW ABOUT THE INDIVIDUALS TAKING CARE OF THEM. I WOULD LIKE TO INVITE YOU TO PARTICIPATE IN THIS STUDY. IT CAN BE A LOT OF FUN. IF YOU ACCEPT MY INVITATION, I WILL ASK YOU SOME QUESTIONS THAT WILL TAKE ANYWHERE BETWEEN 5 AND 25 MINUTES. IS THIS SOMETHING YOU WOULD BE ABLE TO DO?

BEFORE I BEGIN, I WOULD LIKE TO REVIEW WITH YOU AN INFORMATION SHEET ABOUT THE RESEARCH STUDY. Review and then provide patient with attached information sheet.

WOULD YOU LIKE TO PARTICIPATE IN THIS STUDY?

If yes, great, continue. If no, thank them for their time, and dismiss yourself. If patient says, "not right now," ask the patient when you can come back that day, and then dismiss yourself.

(1) ASSESSMENT OF MENTAL STATUS

I WOULD LIKE TO ASK YOU SOME BASIC QUESTIONS THAT WILL TEST YOUR MEMORY. THESE ARE QUESTIONS THAT WE ASK EVERY PATIENT. OK?

	<u>RESPONSE</u>	<u>CORRECT</u>	<u>INCORRECT</u>
1) I WILL NOW TELL YOU THREE ITEMS. I WOULD LIKE YOU TO REPEAT THEM TO ME RIGHT AFTER I TELL YOU ALL THREE. I ALSO WANT YOU TO REMEMBER THESE THREE ITEMS, BECAUSE I WILL ASK YOU TO REPEAT THEM LATER.	BALL _____	1	0
	FLAG _____	1	0
	TREE _____	1	0

Say clearly, about one second for each:

BALL, FLAG, TREE

PLEASE REPEAT THEM NOW:

	<u>RESPONSE</u>	<u>CORRECT</u>	<u>INCORRECT</u>
2) WHAT YEAR ARE WE IN?	_____	1	0
3) WHAT MONTH ARE WE IN? (within 4 days)	_____	1	0
4) WHAT CITY ARE WE IN?	_____	1	0
5) Show a pen, WHAT IS THIS CALLED?	_____	1	0
6) Show a watch, WHAT IS THIS CALLED?	_____	1	0

	<u>RESPONSE</u>	<u>CORRECT</u>	<u>INCORRECT</u>
7) DO YOU REMEMBER THE THREE ITEMS I ASKED TO REPEAT BEFORE?	BALL _____	1	0
CAN YOU TELL ME THEM NOW?	FLAG _____	1	0
	TREE _____	1	0

Only if patient gets # 1 – 6 correct and 1/3 correct in # 7, continue with interview. If not, thank patient for their time, tell them they were very helpful, and kindly dismiss yourself.



NOW, I WOULD LIKE TO ASK YOU SOME QUESTIONS ABOUT THE MEDICAL TEAM THAT IS TAKING CARE OF YOU NOW, DURING THIS HOSPITALIZATION. BEFORE I START, I WANT TO MAKE SURE YOU UNDERSTAND WHAT I MEAN WHEN I SAY "THE MEDICAL TEAM." THE MEDICAL TEAM IS THE GROUP OF INDIVIDUALS THAT ARE MAKING MEDICAL DECISIONS FOR YOU AND THAT MANAGE YOUR MEDICAL CARE WHILE YOU ARE IN THE HOSPITAL ON THIS FLOOR. THE "MEDICAL TEAM" DOES NOT INCLUDE INDIVIDUALS SUCH AS NURSES, PHYSICAL THERAPISTS, SOCIAL WORKERS, DIETICIANS, OR EVEN THE INDIVIDUALS THAT MAY HAVE TAKEN CARE OF YOU IN THE EMERGENCY ROOM. THE MEDICAL TEAM IS THE GROUP THAT COMES TO VISIT YOU IN THE MORNING, TALK TO YOU, AND THEN DISCUSS HOW TO MEDICALLY TAKE CARE OF YOU. OK?

## (2) CURRENT SATISFACTION AND IMPORTANCE OF KNOWLEDGE

8) OVERALL, HOW SATISFIED ARE YOU WITH THE CARE YOU HAVE RECEIVED SO FAR DURING THIS HOSPITAL STAY? ARE YOU?

<u>UNCERTAIN</u>	<u>UNSATISFIED</u>	<u>NOT SO SATISFIED</u>	<u>SATISFIED</u>	<u>or VERY SATISFIED</u>
8	1	2	3	4

9) HOW SATISFIED ARE YOU WITH YOUR CURRENT KNOWLEDGE ABOUT THE MEDICAL TEAM TAKING CARE OF YOU? ARE YOU?

<u>UNCERTAIN</u>	<u>UNSATISFIED</u>	<u>NOT SO SATISFIED</u>	<u>SATISFIED</u>	<u>or VERY SATISFIED</u>
8	1	2	3	4

10) HOW IMPORTANT IS IT TO YOU THAT YOU KNOW THE NAME OF EACH PERSON INVOLVED IN YOUR CARE? IS IT?

<u>UNCERTAIN</u>	<u>UNIMPORTANT</u>	<u>NOT SO IMPORTANT</u>	<u>IMPORTANT</u>	<u>or VERY IMPORTANT</u>
8	1	2	3	4

11) HOW IMPORTANT IS IT TO YOU THAT YOU KNOW THE CAPABILITY OF EACH PERSON INVOLVED IN YOUR CARE? IS IT?

<u>UNCERTAIN</u>	<u>UNIMPORTANT</u>	<u>NOT SO IMPORTANT</u>	<u>IMPORTANT</u>	<u>or VERY IMPORTANT</u>
8	1	2	3	4

## (3) IDENTIFICATION OF TEAM BY NAME AND PICTURE

12) FOR SOME OF THE NEXT QUESTIONS, YOU WILL NEED TO BE ABLE TO LOOK AT PICTURES. IS YOUR VISION OKAY?

YES 1 NO 0

If no, ask them if they have glasses or if you can position the pictures in a way that they can see them? If the patient can't see well enough to view the pictures, thank them for their time and dismiss yourself.

13) YOU WILL ALSO NEED TO BE ABLE TO READ WORDS ON A PAGE. IF YOU ARE UNABLE TO DO THIS, I WILL READ THE WORDS FOR YOU. ARE YOU ABLE TO READ?

YES 1 NO 0



FOR THE NEXT 15 MINUTES I WILL ASK YOU QUESTIONS ABOUT THE INDIVIDUALS CARING FOR YOU. FOR SOME OF THE QUESTIONS YOU MAY NOT KNOW THE ANSWER. THAT IS PERFECTLY OKAY. IF YOU DO NOT KNOW THE ANSWER TO A QUESTION, PLEASE DON'T BE EMBARRASSED TO SAY "I DON'T KNOW." IT IS MUCH BETTER TO SAY "I DON'T KNOW" THAN TO MAKE A RANDOM GUESS. IF YOU WISH, I CAN EDUCATE YOU AFTER WE ARE DONE SO THAT YOU WILL KNOW MORE.

14) Place the three team lists in front of the patient. One list will contain the names of the individuals on the medical team taking care of the patient. The other two lists will contain the names of individuals on two other medical teams in the hospital.

WOULD YOU PLEASE TELL ME WHICH LIST CONTAINS THE NAMES OF THE INDIVIDUALS CARING FOR YOU? THE NAMES ARE WRITTEN IN ALPHABETICAL ORDER. IF YOU NEED ME TO READ A CARD FOR YOU, PLEASE POINT TO THE CARD AND I WILL READ IT FOR YOU.

(Place an "X" next to team patient chooses.)

	<u>CORRECT</u>	<u>INCORRECT</u>	<u>DON'T KNOW</u>
TEAM A _____			
TEAM B _____			
TEAM C _____	1	0	8
DON'T KNOW _____			

15) Place the three team pictures in front of the patient. One picture will be of the medical team taking care of the patient. The other two pictures will be of two other medical teams in the hospital.

WOULD YOU PLEASE TELL ME WHICH PICTURE SHOWS THE INDIVIDUALS CARING FOR YOU? (Place an "X" next to team patient chooses.)

	<u>CORRECT</u>	<u>INCORRECT</u>	<u>DON'T KNOW</u>
TEAM A _____			
TEAM B _____			
TEAM C _____	1	0	8
DON'T KNOW _____			

#### (4) IDENTIFICATION OF INDIVIDUALS ON TEAM AND HIERARCHY

16) Place the individual names in front of the patient. IN FRONT OF YOU, I WILL PUT DOWN FOUR INDEX CARDS. EACH ONE HAS WRITTEN ON IT THE NAME OF AN INDIVIDUAL CARING FOR YOU. Place the titles in front of the patient. I WILL NOW PUT DOWN FOUR OTHER INDEX CARDS IN FRONT OF YOU. EACH ONE HAS WRITTEN ON IT THE TITLE OF AN INDIVIDUAL CARING FOR YOU. I AM PUTTING DOWN BOTH SETS OF CARDS IN ALPHABETICAL ORDER. WOULD YOU PLEASE MATCH THE NAME WITH THEIR APPROPRIATE TITLE BY PLACING A NAME WITH A TITLE? IF YOU NEED ME TO READ A NAME OR TITLE FOR YOU, PLEASE POINT TO A CARD AND I WILL READ IT FOR YOU. PLEASE REMEMBER THAT IF YOU DON'T KNOW, YOU CAN JUST SAY YOU DON'T KNOW.

Place an "X" at the title the patient chooses for each respective name.



<u>NAME</u>	<u>TITLE</u>	<u>NAME</u>	<u>TITLE</u>	<u>NAME</u>	<u>TITLE</u>	<u>NAME</u>	<u>TITLE</u>
<b>MS</b>	MS ___	<b>INT</b>	MS ___	<b>RES</b>	MS ___	<b>ATT</b>	MS ___
	INT ___		INT ___		INT ___		INT ___
	RES ___		RES ___		RES ___		RES ___
	ATT ___		ATT ___		ATT ___		ATT ___
	DK ___		DK ___		DK ___		DK ___
ND ___	ND ___	ND ___	ND ___	ND ___	ND ___	ND ___	
CORRECT	1		1		1		1
INCORRECT	0		0		0		0
DON'T KNOW	8		8		8		8
NOT DONE	9		9		9		9

PATIENT DOES NOT KNOW ANY MATCHES 2

17) Collect the names and place the individual pictures in front of the patient. Realign the titles in alphabetical order. **NOW INSTEAD OF PUTTING DOWN INDEX CARDS OF NAMES, I WILL PUT DOWN PICTURES OF THE INDIVIDUALS CARING FOR YOU. WOULD YOU PLEASE MATCH THE PICTURE WITH THE APPROPRIATE TITLE FOR ME BY PLACING A PICTURE WITH A TITLE? IF YOU NEED ME TO READ A TITLE FOR YOU, PLEASE POINT TO A CARD AND I WILL READ IT FOR YOU.**

Place an "X" at the title the patient chooses for each respective photo.

<u>PHOTO</u>	<u>TITLE</u>	<u>PHOTO</u>	<u>TITLE</u>	<u>PHOTO</u>	<u>TITLE</u>	<u>PHOTO</u>	<u>TITLE</u>
<b>MS</b>	MS ___	<b>INT</b>	MS ___	<b>RES</b>	MS ___	<b>ATT</b>	MS ___
	INT ___		INT ___		INT ___		INT ___
	RES ___		RES ___		RES ___		RES ___
	ATT ___		ATT ___		ATT ___		ATT ___
	DK ___		DK ___		DK ___		DK ___
ND ___	ND ___	ND ___	ND ___	ND ___	ND ___	ND ___	
CORRECT	1		1		1		1
INCORRECT	0		0		0		0
DON'T KNOW	8		8		8		8
NOT DONE	9		9		9		9

PATIENT DOES NOT KNOW ANY MATCHES 2

18) Realign the titles in front of the patient in alphabetical order. **NOW, WOULD YOU PLEASE PUT THE INDEX CARDS WITH THE TITLES IN ORDER OF RESPONSIBILITY FOR YOUR MEDICAL CARE FROM LOWEST TO HIGHEST?**

Write down order patient puts them in:

---

<u>CORRECT</u>	<u>INCORRECT</u>	<u>DON'T KNOW</u>	<u>NOT DONE</u>
1	0	8	9



19) Realign the names in front of the patient in alphabetical order. **NOW, WOULD YOU PLEASE PUT THE INDEX CARDS WITH THE NAMES IN ORDER OF RESPONSIBILITY FOR YOUR MEDICAL CARE FROM LOWEST TO HIGHEST?**

Write down order patient puts them in:

CORRECT  
1

INCORRECT  
0

DON'T KNOW  
8

NOT DONE  
9

20) Realign the individual pictures in front of the patient. **NOW, WOULD YOU PLEASE PUT THE PICTURES OF THE INDIVIDUALS IN ORDER OF RESPONSIBILITY FOR YOUR MEDICAL CARE FROM LOWEST TO HIGHEST?**

Write down order patient puts them in:

CORRECT  
1

INCORRECT  
0

DON'T KNOW  
8

NOT DONE  
9

#### (5) AWARENESS OF HOUSESTAFF EDUCATION LEVEL

Realign the individual pictures of each member of the team in front of the patient.

**I WILL NOW ASK YOU SOME QUESTIONS, WHICH I WOULD LIKE YOU TO ANSWER BY POINTING TO THE APPROPRIATE PICTURE OR PICTURES.**

21) **WHICH OF THE FOLLOWING INDIVIDUALS IN THESE PICTURES DO YOU THINK IS STILL IN MEDICAL TRAINING?**

<u>PICTURE</u>	<u>STILL IN TRAINING</u>	<u>DON'T KNOW</u>	<u>CORRECT</u>	<u>INCORRECT</u>
MEDICAL STUDENT	_____	8	1	0
INTERN	_____	8	1	0
RESIDENT	_____	8	1	0
ATTENDING	_____	8	1	0

22) **WHICH OF THE FOLLOWING INDIVIDUALS IN THESE PICTURES DO YOU THINK FINISHED ALL OF THEIR MEDICAL TRAINING?**

<u>PICTURE</u>	<u>FINISHED TRAINING</u>	<u>DON'T KNOW</u>	<u>CORRECT</u>	<u>INCORRECT</u>
MEDICAL STUDENT	_____	8	1	0
INTERN	_____	8	1	0
RESIDENT	_____	8	1	0
ATTENDING	_____	8	1	0

23) **WHICH OF THE FOLLOWING INDIVIDUALS IN THESE PICTURES DO YOU THINK HAS A MEDICAL DOCTOR DEGREE ALREADY?**

<u>PICTURE</u>	<u>HAS M.D. DEGREE</u>	<u>DON'T KNOW</u>	<u>CORRECT</u>	<u>INCORRECT</u>
MEDICAL STUDENT	_____	8	1	0
INTERN	_____	8	1	0
RESIDENT	_____	8	1	0
ATTENDING	_____	8	1	0



## (6) UNDERSTANDING OF HOUSESTAFF CAPABILITIES

24) WHO OF THE FOLLOWING INDIVIDUALS IN THESE PICTURES IS AUTHORIZED TO ASK YOU QUESTIONS ABOUT YOUR MEDICAL CONDITION?

<u>PICTURE</u>	<u>AUTHORIZED</u>	<u>DON'T KNOW</u>	<u>CORRECT</u>	<u>INCORRECT</u>
MEDICAL STUDENT	_____	8	1	0
INTERN	_____	8	1	0
RESIDENT	_____	8	1	0
ATTENDING	_____	8	1	0

25) WHO OF THE FOLLOWING INDIVIDUALS IN THESE PICTURES IS AUTHORIZED TO PERFORM A PHYSICAL EXAM ON YOU?

<u>PICTURE</u>	<u>AUTHORIZED</u>	<u>DON'T KNOW</u>	<u>CORRECT</u>	<u>INCORRECT</u>
MEDICAL STUDENT	_____	8	1	0
INTERN	_____	8	1	0
RESIDENT	_____	8	1	0
ATTENDING	_____	8	1	0

26) WHO OF THE FOLLOWING INDIVIDUALS IN THESE PICTURES IS AUTHORIZED TO ORDER DIAGNOSTIC TESTS FOR YOU?

<u>PICTURE</u>	<u>AUTHORIZED</u>	<u>DON'T KNOW</u>	<u>CORRECT</u>	<u>INCORRECT</u>
MEDICAL STUDENT	_____	8	1	0
INTERN	_____	8	1	0
RESIDENT	_____	8	1	0
ATTENDING	_____	8	1	0

27) WHO OF THE FOLLOWING INDIVIDUALS IN THESE PICTURES IS AUTHORIZED TO PRESCRIBE (ORDER) MEDICATIONS FOR YOU?

<u>PICTURE</u>	<u>AUTHORIZED</u>	<u>DON'T KNOW</u>	<u>CORRECT</u>	<u>INCORRECT</u>
MEDICAL STUDENT	_____	8	1	0
INTERN	_____	8	1	0
RESIDENT	_____	8	1	0
ATTENDING	_____	8	1	0

28) WHO OF THE FOLLOWING INDIVIDUALS IN THESE PICTURES NEEDS NO SUPERVISION AT ALL AT ANY TIME FROM ANY OTHER PERSON?

<u>PICTURE</u>	<u>NO SUPERVISION</u>	<u>DON'T KNOW</u>	<u>CORRECT</u>	<u>INCORRECT</u>
MEDICAL STUDENT	_____	8	1	0
INTERN	_____	8	1	0
RESIDENT	_____	8	1	0
ATTENDING	_____	8	1	0

29) CAN YOU TELL ME WHICH INDIVIDUAL HAS ULTIMATE RESPONSIBILITY OF YOUR CARE?



<u>PICTURE</u>		<u>DON'T KNOW</u>	<u>CORRECT</u>	<u>INCORRECT</u>
MEDICAL	_____			
STUDENT	_____			
INTERN	_____	8	1	0
RESIDENT	_____			
ATTENDING	_____			

Collect pictures and place titles in alphabetical order in front of patient.

**30) CAN YOU TELL ME WHICH INDIVIDUAL HAS ULTIMATE RESPONSIBILITY OF YOUR CARE?**

<u>TITLE</u>		<u>DON'T KNOW</u>	<u>CORRECT</u>	<u>INCORRECT</u>
MEDICAL	_____			
STUDENT	_____			
INTERN	_____	8	1	0
RESIDENT	_____			
ATTENDING	_____			

Collect the titles.

**(7) PATIENT INTERESTS**

**31) WOULD YOU LIKE MORE INFORMATION ABOUT THE INDIVIDUALS CARING FOR YOU?**

<u>YES</u>	<u>NO</u>	<u>DON'T CARE</u>
1	0	2

**32) IF YES, WHAT WOULD YOU LIKE MORE INFORMATION ABOUT?**

---

**33) WOULD YOU LIKE TO BE MORE AWARE OF YOUR CARETAKERS':**

	<u>YES</u>	<u>NO</u>	<u>DON'T CARE</u>
NAMES?	1	0	2
THEIR CAPABILITIES?	1	0	2
THEIR RESPONSIBILITIES?	1	0	2
THEIR LEVEL OF TRAINING?	1	0	2

**34) HOW SATISFIED ARE YOU WITH THE MEDICAL CARE PROVIDED TO YOU BY THE DOCTORS AND MEDICAL STUDENTS? ARE YOU?**

<u>UNCERTAIN</u>	<u>UNSATISFIED</u>	<u>NOT SO SATISFIED</u>	<u>SATISFIED</u>	<u>or VERY SATISFIED</u>
8	1	2	3	4

**35) HOW SATISFIED ARE YOU WITH THE MEDICAL CARE PROVIDED TO YOU BY THE NURSES? ARE YOU?**

<u>UNCERTAIN</u>	<u>UNSATISFIED</u>	<u>NOT SO SATISFIED</u>	<u>SATISFIED</u>	<u>or VERY SATISFIED</u>
8	1	2	3	4



36) HOW SATISFIED ARE YOU WITH YOUR HOSPITAL ROOM? ARE YOU?

<u>UNCERTAIN</u>	<u>UNSATISFIED</u>	<u>NOT SO SATISFIED</u>	<u>SATISFIED</u>	<u>or VERY SATISFIED</u>
8	1	2	3	4

(8) PATIENT DEMOGRAPHICS

NOW I AM GOING TO ASK YOU SOME QUESTIONS ABOUT YOU.

37) PLEASE TELL ME YOUR AGE? \_\_\_\_\_ 1 2 3 4 5 6 7 8 9 10  
0 1 2 3 4 5 6 7 8 9

38) WHAT DO YOU CONSIDER YOUR ETHNICITY? HISPANIC or NON-HISPANIC  
1 0

39) WHAT DO YOU CONSIDER YOUR RACE? CAUCASIAN AFRICAN AMERICAN ASIAN or OTHER  
1 2 3 0

40) GENDER: MALE FEMALE  
1 0

41) WHAT WAS THE HIGHEST GRADE OF SCHOOLING THAT YOU HAVE COMPLETED?

NONE 0 HIGH SCHOOL 9 10 11 12  
ELEMENTARY SCHOOL 1 2 3 4 5 6 7 8 COLLEGE 13 14 15 16 17  
POST COLLEGE \_\_\_\_\_

42) HOW WOULD YOU DESCRIBE YOUR OVERALL HEALTH? HEALTHY SIMPLE MEDICAL PROBLEMS or COMPLEX  
0 1 2

43) HOW MANY TIMES IN THE PAST TEN YEARS HAVE YOU BEEN HOSPITALIZED IN ANY HOSPITAL? NEVER ONCE 2-5 x 5-10 x > 10 x or DON'T KNOW  
0 1 2 3 4 8

44) HOW MANY TIMES IN THE PAST TEN YEARS HAVE YOU BEEN HOSPITALIZED IN THIS HOSPITAL? NEVER ONCE 2-5 x 5-10 x > 10 x or DON'T KNOW  
0 1 2 3 4 8

45) HOW MANY TIMES IN THE PAST TEN YEARS, BEFORE THIS HOSPITALIZATION, DO YOU THINK YOU HAVE HAD MEDICAL STUDENTS AND RESIDENTS INVOLVED IN YOUR CARE?

NEVER 1-3 x 4-5 x > 5 x ALWAYS or DON'T KNOW  
0 1 2 3 4 8



46) IS ANYONE IN YOUR FAMILY A DOCTOR?	<u>YES</u> 1	<u>NO</u> 0	<u>DON'T KNOW</u> 8
---	-----------------	----------------	------------------------

47) HAVE YOU EVER WORKED IN HEALTHCARE?	<u>YES</u>	<u>NO</u>	<u>DON'T KNOW</u>
	1	0	8

THANK YOU SO MUCH FOR YOUR TIME AND COOPERATION. THE INTERVIEW IS NOW OVER.

IF YOU HAVE ANY QUESTIONS FOR ME, I WILL BE GLAD TO ANSWER THEM NOW.  
IF YOU WOULD LIKE ME TO EDUCATE YOU ABOUT THE INDIVIDUALS CARING FOR  
YOU, I WOULD BE GLAD TO DO THAT NOW.

### (9) EDUCATION

#### 48) WOULD YOU LIKE SOME EDUCATION?

Wanted education	1	Did not want education	0
------------------	---	------------------------	---

## STRESS POSITIVES

- Great teamwork
- Constant supervision
- Superb teaching (new treatments, etc.)
- Many minds thinking about you all the time.
- Some have more time to talk to you about any concerns you have.
- Etc.

49) HOW HELPFUL WAS THE EDUCATION YOU JUST RECEIVED? WAS IT?

<u>UNCERTAIN</u>	<u>UNHELPFUL</u>	<u>NOT SO HELPFUL</u>	<u>HELPFUL</u>	<u>or VERY HELPFUL</u>
8	1	2	3	4

50) ARE YOU HAPPY WE WENT OVER THIS INFORMATION?

<u>UNCERTAIN</u>	<u>UNHAPPY</u>	<u>NOT SO HAPPY</u>	<u>HAPPY</u>	or <u>VERY HAPPY</u>
8	1	2	3	4

THANK YOU AGAIN FOR YOUR TIME. HAVE A NICE DAY.

WRITE DOWN WHAT PATIENTS DISCUSS WITH YOU IN SPACE BELOW.



**IV. INFORMATION SHEET FOR PARTICIPATION IN A RESEARCH PROJECT  
YALE UNIVERSITY SCHOOL OF MEDICINE  
YALE-NEW HAVEN HOSPITAL**

**Invitation to Participate and Description of Project**

You are invited to participate in a research project to determine patients' awareness and understanding as to the involvement and capabilities of the individuals involved in their care. You have been chosen for this research project because you have been admitted to an internal medicine ward at Yale New Haven Hospital, which is considered a teaching hospital.

To help you decide whether or not you wish to be a part of this research study, you should know enough about the risks and benefits to make an informed decision. This information sheet gives you detailed information about the research study, which a member of the research team will discuss with you. The discussion should go over all aspects of this research: its purpose, questionnaire, any risks, and possible benefits. Once you understand the study, you will be asked if you wish to participate.

**Purpose**

To study patients' awareness and understanding as to the involvement and capabilities of the individuals involved in their care, and to determine if patients feel their basic rights have been compromised when they are not given this information.

**Questionnaire**

In this study, you will be asked questions for 5 to 25 minutes about your knowledge of the medical team caring for you.

**Risks & Inconveniences**

There are no risks of physical injury. There are no economical or legal risks.

You may or may not feel inconvenienced by taking part of this study because of the time needed to ask you questions. After the interview, you might feel that you would like to know more about the individuals involved in your care. However, no calculable risks to your medical care and/or medical outcome are anticipated from this study.

**Benefits**

This study may help you directly, as well as contribute important information to the medical community in an effort to improve patient care. You may feel better cared for after discussing your awareness and understanding of the individuals caring for you and you may appreciate the researchers' interest in evaluating and upholding your basic patient rights. Furthermore, you may desire to ask more questions and become more involved in your medical management as a result of learning about the individuals caring for you.

**Economic Considerations**

You will not be paid for participating in this study. This study is being funded by the Office of Student Research for the Yale School of Medicine.



**Confidentiality**

You will remain anonymous. Your name will not be recorded with research data. All of the information provided by you will remain confidential, and will not be available to housestaff caring for you. If the results of this study are published, your name will not be used.

The Yale Human Investigation Committee (the group that looks out for the interests of research participants) may view study records if necessary.

**Voluntary Participation**

You are free to choose not to participate in this study. If you do become a subject you are free to withdraw from this study at any time during the interview. If you choose not to participate or if you withdraw it will not adversely affect your relationship with your doctors or this hospital.

**Questions**

Please feel free to ask about anything you don't understand and to consider this research – as long as you feel necessary – before you make a decision.

If you have further questions about this project or if you have a research-related problem, you may contact the study director, Ron Samet, a Yale Medical Student, at 203-766-8446 or Dr. Walter Kernan at 203-688-2984 . If you have any questions concerning your rights as a research subject, you may contact the Human Investigation Committee at (203) 785-4688.













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